

What is claimed is:

1. An encoder-equipped sealing device comprising a combination of seal elements (3, 2) each formed from an annular metal core (31, 32) having a substantially L-shaped cross section, each of the annular metal cores (31, 32) having a cylindrical portion (31a, 21a) and a flange portion (31b, 21b) provided on one end of the cylindrical portion (31a, 21a) and extending in the direction perpendicular to the direction in which the cylindrical portion (31a, 21a) extends, wherein

one seal element (3) of the seal elements (3, 2) and the other seal element (2) are combined such that the space defined by the cylindrical portion (31a) and flange portion (31b) of the seal element (3) and the space defined by the cylindrical portion (21a) and flange portion (21b) of the other seal element (2) face opposite each other;

one seal element (3) includes a seal portion (6) made of an elastic element provided on the flange portion (31b) and arranged in the space defined by the cylindrical portion (31a) and flange portion (31b); and

the other seal element (2) includes a magnet-based encoder (1) provided on the flange portion (21b), and wherein

one seal element (3) further includes a projecting portion (4a) provided on the end of the cylindrical portion (31b) on the side on which the flange portion (31b) is located, the projecting portion (4a) extending beyond the side of the flange portion (31b) opposite the side on which the seal portion (6) is located and in the direction in which the cylindrical portion (31a) extends.

2. The encoder-equipped sealing device as defined in Claim 1, wherein one seal element (3) includes an end (4b) at the end of the cylindrical portion (31a) on which the flange portion (31b) is located, and wherein said end (4b) forming a projecting portion is formed by folding the base end of the flange portion (31b) and the end of the cylindrical portion (31a) thereby overlapping

each other in the direction in which the cylindrical portion (31a) extends.

3. An encoder-equipped sealing device comprising a combination of seal elements (3, 2) each formed from an annular metal core (31, 32) having a substantially L-shaped cross section, each of the annular metal cores (31, 32) having a cylindrical portion (31a, 21a) and a flange portion (31b, 21b) provided on one end of the cylindrical portion (31a, 21a) and extending in the direction perpendicular to the direction in which the cylindrical portion (31a, 21a) extends, wherein

one seal element (3) of the seal elements (3, 2) and the other seal element (2) are combined such that the space defined by the cylindrical portion (31a) and flange portion (31b) of the seal element (3) and the space defined by the cylindrical portion (21a) and flange portion (21b) of the other seal element (2) face opposite each other;

one seal element (3) includes a seal portion (6) made of an elastic element provided on the flange portion (31b) and arranged in the space defined by the cylindrical portion (31a) and flange portion (31b); and

the other seal element (2) includes a magnet-based encoder (1) provided on the flange portion (21b), and wherein

one seal element (3) further includes a projecting portion (4c) extending beyond the side of the flange portion (31b) opposite the side on which the seal portion (6) is located and extending in the direction in which the cylindrical portion (31a) extends.

4. An encoder-equipped sealing device comprising a combination of seal elements (3, 2) each formed from an annular metal core (31, 32) having a substantially L-shaped cross section, each of the annular metal cores (31, 32) having a cylindrical portion (31a, 21a) and a flange portion (31b, 21b) provided on one end of the cylindrical portion (31a, 21a) and extending in the direction perpendicular to the direction in which the cylindrical portion (31a, 21a) extends, wherein

one seal element (3) of the seal elements (3, 2) and the other seal element (2) are combined such that the space defined by the cylindrical portion (31a) and flange portion (31b) of the seal element (3) and the space defined by the cylindrical portion (21a) and flange portion (21b) of the other seal element (2) face opposite each other;

one seal element (3) includes a seal portion (6) made of an elastic element provided on the flange portion (31b) and arranged in the space defined by the cylindrical portion (31a) and flange portion (31b); and

the other seal element (2) includes a magnet-based encoder (1) provided on the flange portion (21b), and wherein

the end portion (4d) of the cylindrical portion (31a) of the seal element (3) extending toward the other seal element (2) is extending in the direction in which the cylindrical portion (31a) extends and beyond the side of the other seal element (2) opposite the side on which the other seal element (2) faces opposite the seal element (3).

5. An encoder-equipped sealing device comprising a combination of seal elements (3, 2) each formed from an annular metal core (31, 32) having a substantially L-shaped cross section, each of the annular metal cores (31, 32) having a cylindrical portion (31a, 21a) and a flange portion (31b, 21b) provided on one end of the cylindrical portion (31a, 21a) and extending in the direction perpendicular to the direction in which the cylindrical portion (31a, 21a) extends, wherein

one seal element (3) of the seal elements (3, 2) and the other seal element (2) are combined such that the space defined by the cylindrical portion (31a) and flange portion (31b) of the seal element (3) and the space defined by the cylindrical portion (21a) and flange portion (21b) of the other seal element (2) face opposite each other;

one seal element (3) includes a seal portion (6) made of an elastic element provided on the flange portion (31b) and arranged in the space

defined by the cylindrical portion (31a) and flange portion (31b); and

the other seal element (2) includes a magnet-based encoder (1) provided on the flange portion (21b), and wherein

one seal element (3) further includes a recess (4f) formed on the side of the flange portion (31b) opposite the side on which the seal portion (6) is located and extending toward the side on which the seal portion (6) is located.

6. An encoder-equipped sealing device comprising a combination of seal elements (3, 2) each formed from an annular metal core (31, 32) having a substantially L-shaped cross section, each of the annular metal cores (31, 32) having a cylindrical portion (31a, 21a) and a flange portion (31b, 21b) provided on one end of the cylindrical portion (31a, 21a) and extending in the direction perpendicular to the direction in which the cylindrical portion (31a, 21a) extends, wherein

one seal element (3) of the seal elements (3, 2) and the other seal element (2) are combined such that the space defined by the cylindrical portion (31a) and flange portion (31b) of the seal element (3) and the space defined by the cylindrical portion (21a) and flange portion (21b) of the other seal element (2) face opposite each other;

one seal element (3) includes a seal portion (6) made of an elastic element provided on the flange portion (31b) and arranged in the space defined by the cylindrical portion (31a) and flange portion (31b); and

the other seal element (2) includes a magnet-based encoder (1) provided on the flange portion (21b), and wherein

the encoder (1) is arranged on the side of the flange portion (21b) opposite the side on which the flange portion (21b) faces opposite the one seal element (3); and

the flange portion (21b) includes a projecting portion (4e) extending beyond the surface of the encoder (1) and in the direction in which the

cylindrical portion (21a) extends.

7. An encoder-equipped sealing device comprising a combination of seal elements (3, 2) each formed from an annular metal core (31, 32) having a substantially L-shaped cross section, each of the annular metal cores (31, 32) having a cylindrical portion (31a, 21a) and a flange portion (31b, 21b) provided on one end of the cylindrical portion (31a, 21a) and extending in the direction perpendicular to the direction in which the cylindrical portion (31a, 21a) extends, wherein

one seal element (3) of the seal elements (3, 2) and the other seal element (2) are combined such that the space defined by the cylindrical portion (31a) and flange portion (31b) of the seal element (3) and the space defined by the cylindrical portion (21a) and flange portion (21b) of the other seal element (2) face opposite each other;

one seal element (3) includes a seal portion (6) made of an elastic element provided on the flange portion (31b) and arranged in the space defined by the cylindrical portion (31a) and flange portion (31b); and

the other seal element (2) includes a magnet-based encoder (1) provided on the flange portion (21b), and wherein

one seal element (3) further includes an elastic lateral side portion (5) formed on the side of the flange portion (31b) opposite the side on which the seal portion (6) is located, the elastic lateral side portion (5) having undulations (4g) formed thereon.